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The
NATIONAL ASSOCIATION
of CORPORATION SCHOOLS
BULLETIN

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Volume V

July, 1918

Cooperative Management

The increasing number of requests for information on profit sharing plans and cooperative management schemes has led the editorial staff of the BULLETIN to resurvey the field for information bearing on these subjects. Under the guise of profit sharing there are innumerable plans but not very much real information as to real profit sharing schemes in which both the employers and the employes share alike in profits and losses. The general result has been that while the individual workman hopes to share in the profits of the industry with which he is connected, he is usually more vitally interested in what he receives than in what his co-workers receive. Only a system combining profit sharing with an individual incentive has been found will result in the highest percentage of output of which the employe is capable. See feature article in this issue.

PUBLISHED BY ORDER OF THE
EXECUTIVE COMMITTEE

The National Association of Corporation Schools

Headquarters, 130 East 15th Street, New York City

Objects

Corporations are realizing more and more the importance of education in the efficient management of their business. The Company school has been sufficiently tried out as a method of increasing efficiency to warrant its continuance as an industrial factor.

The National Association of Corporation Schools aims to render new corporation schools successful from the start by warning them against the pitfalls into which others have fallen and to provide a forum where corporation school officers may interchange experience. The control is vested entirely in the member corporations, thus admitting only so much of theory and extraneous activities as the corporations themselves feel will be beneficial and will return dividends on their investment in time and membership fees.

A central office is maintained where information is gathered, arranged and classified regarding every phase of industrial education. This is available to all corporations, companies, firms or individuals who now maintain or desire to institute educational courses upon becoming members of the Association.

Functions

The functions of the Association are threefold: to develop the efficiency of the individual employee; to increase efficiency in industry; to have the courses in established educational institutions modified to meet more fully the needs of industry.

Membership

From the Constitution—Article III.

SECTION 1.—Members shall be divided into three classes: Class A (Company Members) Class B (Members), Class C (Associate Members).

SECTION 2.—Class A members shall be commercial, industrial, transportation or governmental organizations, whether under corporation, firm or individual ownership, which now are or may be interested in the education of their employees. They shall be entitled, through their properly accredited representatives, to attend all meetings of the Association, to vote and to hold office.

SECTION 3.—Class B members shall be officers, managers or instructors of schools conducted by corporations that are Class A members. They shall be entitled to hold office and attend all general meetings of the Association.

SECTION 4.—Class C members shall be those not eligible for membership in Class A or Class B who are in sympathy with the objects of the Association.

Dues

From the Constitution—Article VII.

SECTION 1.—The annual dues of Class A members shall be \$100.00.

SECTION 2.—The annual dues of Class B members shall be \$5.00 and the annual dues of Class C members shall be \$10.00.

SECTION 3.—All dues shall be payable in advance and shall cover the calendar year. New Class A members joining between January 1st and April 1st shall pay first year's dues of \$100.00; those joining between April 1st and July 1st shall pay nine months' dues or \$75.00; those joining between July 1st and October 1st shall pay six months' dues or \$50.00; those joining between October 1st and December 31st shall pay three months' dues or \$25.00, but for subsequent years shall pay full dues of \$100.00. Any members in arrears for three months shall be dropped by the Executive Committee unless in its judgment sufficient reasons shall exist for continuing members on the roll.

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The National Association of Corporation Schools B U L L E T I N

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No. 7

THE FUTURE OF THE UNITED STATES WILL BE DETERMINED BY SANE AND PATRIOTIC ACTION

Discussion of the changes which will take place in the United States after the war is now much more sane and more constructive. Since the entrance of our country into the conflict most of the abler minds of the United States have been concentrated on a constructive preparedness and military program. This left the field of discussion pretty much to those who love to hear themselves talk, but who reason for the most part rather badly, and, as if this affliction were not enough, the Bolsheviks of Russia and the Radicals of England, of the Buchanan and Henderson type, have added their din to the human cry that has been ringing in our land. Many things have been predicted not only for the United States, but for Great Britain and for France and for all of the other countries inhabited by supposedly sane and educated people capable of forming correct and just conclusions.

So representative a publication as *Collier's Weekly*, under the caption "When Johnny Comes Marching Home," gives us the proposed program of the labor party in Great Britain, and comments that this program has aroused a great deal of interest in this country, because of the effect it may have on the plans of our leaders of union labor. The plan in itself is simple, embodying such minor details as "Government insurance against unemployment, national control of railways and mines, the production of electrical power and life insurance, rigid price fixing" and to direct taxation of incomes to anywhere from 80 to 95 per cent, and that this "'unearned increment' all be turned into the

National treasury, and that the Government must be 'the heir to all private riches in excess of a quite moderate amount by way of family provision.' " Incidentally the program provides for a conscription of wealth to pay off the national debt. Just how this is to be done is not stated. Presumably a mere detail.

In a discussion of this conscription of wealth scheme somewhat more conservative minds have discovered that the plan is not workable. Capital is not sufficiently liquid. There is no doubt but what the British government and every other government involved in the conflict will have to secure capital and will take capital when needed. There has been no difficulty in this respect in England, in France, in Italy nor in the United States, nor will there be any difficulty after the conflict is over. We are of the opinion, however, that the leading nations of the world which have sacrificed so much in blood and treasure will hardly revert to an anarchistic plan under which to rehabilitate themselves in the after-war period.

That the United States will play an important part in the reconstruction work is admitted. The wealth of our country is greater than the wealth of France, Great Britain and Germany combined, and the debt of the United States, compared to our annual income is, according to Mr. Morrison, an authority, 17.50%; whereas in France it is 333.34%; in Great Britain, 192.00%; in Germany, 237.27%, or as the editor of *Collier's* puts it:

"If France could devote every cent of income to the national debt, it would require three years and four months to pay it off; if Great Britain could devote every cent of income to her national debt, it would take nearly two years to pay it off; if Germany could devote every cent of income to the national debt, it would take considerable more than two years to pay it off. If the United States could devote every cent of income to the national debt, it would take a little more than two months to pay it off. Taking annual income as a basis of power to pay, France has gone in nearly twenty times as deep as we have. England has gone in more than ten times as deep as we have. Germany has gone in nearly twelve times as deep. We've got the money; we haven't begun to shell it out."

To get another view of the situation let us quote another set of figures:

"The United States covers considerably less than 6 per cent. of the earth's area, and contains only about 5 per cent. of the earth's population, but official records show that the United States produces:

76 per cent. of all the corn grown in the entire world.

70 per cent. of all the cotton.

72 per cent. of all the oil.

59 per cent. of all the copper.

43 per cent. of all the pig iron.

37 per cent. of all the coal.

35 per cent. of all the tobacco.

26 per cent. of all the silver.

24 per cent. of all the wheat.

21 per cent. of all the gold, and contains more than 33 per cent. of all the wealth in the world."

It is becoming increasingly certain that the German Emperor rather underestimated the resources and powers of the United States when he began his brutal, inhuman submarine warfare, and many others also have underestimated not only the possible military power of our country, but its resources and strength as a peace nation. When the ten million odd men between 21 and 31 years of age went to the poles and registered under the selective draft law there was nothing to indicate that anarchy and the doctrines it teaches would prevail in this country either during or after the close of the conflict, and as the million additional men who reached the age of 21 years registered for military service on June 5th last there again was every assurance that law and order and justice would prevail in our country both during the war and after its close. There have been some predictions which have caused conservative and constructive citizens to pause and reflect. Perhaps the most notable of these statements was that made by Charles M. Schwab at the annual dinner of the Old Boys' Society in New York, when after characterizing the present period as the age of the greatest material growth that the world had ever witnessed, he predicting that the world was to undergo great social changes at the end of the war, Mr. Schwab said that he thought socialism was working for the good of

mankind. "We are facing another social situation," he said, "which we should be keenly alive to, a situation which is going to come at the close of the war, a 'social renaissance' of the whole world. Call it socialism, social revolution, Bolshevism, or what you will, it is a leveling process, and means that the workman without property, who labors with his hands, is going to be the man who will dominate the world. It is going to be a great hardship to the owners of property, but like all revolutionary movements it will probably work good. The sooner we realize this the better it will be for America. We must not fight this movement, but we must educate it. We must go among the people of the working classes and mingle with them, and learn their feelings and thoughts."

In his endorsement of Mr. Schwab's prediction, Charles W. Eliot, President Emeritus of Harvard, agreed with Mr. Schwab that the workers will rule the world in the future, but Dr. Eliot amended the statement to give a broader meaning to the word workers:

Under the term "workers" I include the bankers, teachers, inventors and managers, and I expect that in the future, as in the recent past, this latter class of workers will do most of the ruling and most of the solving of the great economic questions now being considered—at least in free countries.

Careful analysis of Mr. Schwab's statement and Dr. Eliot's amendment leads to the conclusion that the world will be much as it was before the war, except there will be a new definition of the word "democracy." There will not so much be a new democracy as there will be a more careful defining of the meaning of the term. Many of the practices which existed, but which were gradually being discouraged prior to the war, will unquestionably disappear. "High finance" will probably have had its day and "absentee management," which fails to take account of the rights of the workers, will undoubtedly be more closely scrutinized.

In one respect, however, Mr. Schwab is unquestionably sound in his reasoning—there will be a re-stating of the meaning of the word democracy—there will be an understanding as to

what was meant by "making the world safe for democracy," but there will be no turning to the I. W. W. or to the Socialist or Radical leaders of Great Britain, or to the Bolshevik for counsel or guidance. The American soldier knows what he is fighting for, and the great army at home that is backing up our boys in the field are not ignorant of what the conflict means, and we are of the opinion that the same condition is true in Great Britain and true in France. There may be a re-stating of the rights of capital and of the rights of those who create wealth, but there can be no doubt but what leadership will command its price as it has always commanded a price, and there can be no doubt but what the individual who studies and works and develops will be rewarded as he has always been rewarded.

The subject to which the writer feels we should give most concern is that our industries be administered fairly and justly to all concerned, that they be administered economically, and that every individual in industry or out of industry shall have equality of opportunity and equality of reward as he may merit reward. To insure such a plan some changes will have to be made, and they will be made, and these changes will be brought about by the patriotic, conservative, sympathetic and loyal American citizens just as the progress of this country has been guided by the same character of minds during its whole development from revolutionary days to the present time.

A democracy makes no provision for the anarchist, or the destructionist, or the theorist, or the pacifist—democracy is the fruit of constructive thinking rather than destructive effort.

GAINING ENTRANCE TO THE MAJOR INDUSTRIES

The Class "A" membership of Armour & Company brings three of the five large meat packing industries of the country into membership in our Association. The membership of the Washburn-Crosby Company gave us entrance into the flour milling industry, and the membership of the Universal Portland Cement Company opened up the cement industry to the development work that our Association is engaged in. One of the most important of the new fields to which our Association has gained

entrance is the great cotton milling industry of the south. The Class "A" membership of the Victor-Monaghan Mills brought our Association into this field. Class "A" membership from the Dow Chemical Company also opened up this growing industry to our activities, although we previously had entrance into the pharmaceutical industry through the Eli Lilly Company. It will thus be seen that gradually our Association is extending its activities into all of the principal industries of the United States.

As the work of our Association is becoming better recognized, all doubt is disappearing as to the ultimate place that The National Association of Corporation Schools will occupy in the development of the educational and training systems of our country.

The special reports and the confidential reports have made a decided impression upon the executives of our Class "A" members. Most of the requests received for additional copies have been by presidents of these institutions. As regards the confidential report on the problem of labor turnover, practically all such requests come from presidents. When the president of a large institution becomes personally interested in our Association, it is easy to determine what the future of our Association will be. No other institution in so brief an existence has contributed so much to the welfare of the industries of the United States.

INCREASING THE VALUE OF CLASS "A" MEMBERSHIPS

Our Association has now progressed to a point where it is able to render a more complete service to its Class "A" members. This service was inaugurated in May by the issuance of the first special report covering the subject of trade apprenticeship schools, the first report being a codification of all the information contained in the five volumes of proceedings on the subject.

This service was supplemented a few weeks later by the first confidential report. The subject of this report being the "problem of labor turnover." It is proposed to issue two special

reports and two confidential reports during each calendar year. The next special report, which will probably appear in October, will cover the subject of office work schools, and the second confidential report will deal with the "problem of business correspondence." These reports are available to Class "A" members only, the object being to enhance the value of Class "A" membership to such an extent that industrial corporations cannot afford to be without the service, and will therefore join with our present membership in promoting the work which our Association is doing.

When our Association was organized some five and a half years ago it had no capital, and it has enjoyed no legacies or endowments. Its total source of revenue has been the dues from its members, and a small revenue derived from the sale of proceedings and subscriptions to the monthly *BULLETIN*. Each year a deficit has been encountered which, however, has been materially lessened until prospects warrant the hope that revenue this year will be ample to conduct all of our Association's activities, including the special and confidential reports. The fact that our Association at the moment enjoys a larger Class "A" membership than at any other time indicates that the value of membership is constantly increasing. This at least is the aim of the Executive Committee. It is obvious, of course, that the larger our membership the greater will be the revenue derived from dues, and as a consequence the return to members materially enhanced.

DEVELOPMENTS OF OUR ASSOCIATION'S COURSE AT NEW YORK UNIVERSITY

In the news columns of the *BULLETIN* will be found an article containing information about the course inaugurated last fall at New York University, and designed to train for the position of educational directors in corporation schools. Considerable interest centers in this movement because of its pioneer character. It is the first time a course designed to train directors for industrial educational activities, especially in the corporation schools, has ever been given.

Enrolment was somewhat interfered with, due to members of the class entering the services of their Government, nevertheless a goodly number completed the course with credible ratings, and all are satisfactorily employed. The most serious drawback encountered in developing the movement is the fact that New York University can serve only the vicinity of New York, except, of course, a relatively small number of students who might be enrolled in other courses, and there is an additional drawback in the fact that students of this class have not the age and experience to qualify them as educational directors in corporation schools.

Perhaps in time the course can be reduced to writing, or sufficiently outlined to enable other universities to conduct similar instruction. On the whole the course was a success, and the instruction given will materially contribute to the momentum of the movement for industrial training. The course will be repeated at the University during the coming winter, and it is believed that in the course of a year or two similar courses can be inaugurated in other sections of the country.

THE WORLD'S COMMERCE AFTER THE WAR

According to the report of the Committee on Exports Control, submitted to the National Foreign Trades Council, the restoration of peace is bound to be followed by a renewed struggle for the markets of the world, which, "to judge from the way the nations are preparing, will surpass the commercial competition of the epoch that ended in 1914, as the present war surpasses that of 1870-71.

"England is preparing, France is preparing, Germany is preparing," says the report, "and just as in the military struggle each side learns constantly from the other and their methods become in various respects more and more alike.

"The English," continues the report, "are obviously preparing themselves to submit after the war to a great deal of Government interference, of industrial and commercial regimentation which they would not have tolerated in the epoch that ended, because their individualism has become national through the war,

and they are now willing, if necessary, to cooperate with the former British competitors for the purpose of defeating a common competitor in foreign lands.

"Germany's preparatory effort for the coming struggle takes preponderantly the form of greater consolidation, amalgamation, and centralization. It is the same process that showed itself so markedly before the war in Government ownership or in bureaucratic control of industry and commerce and labor, to which the name State socialism has been given in the close cooperation of high finance and big industry. But it is to be very much more intense and complete.

"France also remains true to type."

C. P. Austin, statistician of the National City Bank of New York and former chief of the United States Bureau of Statistics, in a paper read before the council, said that world commerce after the war will not differ radically from that which existed before the war.

"The great trade currents of the world," he said, "were built up as the result of the fact that the world's manufacturing is chiefly performed by a limited number of countries, which distribute their products to every part of the world and bring back manufacturing material and food in exchange. Of approximately \$80,000,000,000 worth of manufactures produced annually in the world in normal times, about \$8,000,000,000 worth enter international trade, and the countries exporting them take in exchange an equal value of manufacturing materials and food-stuffs.

"The manufacturing world consists chiefly of the United States, Great Britain, Germany, France, Belgium, Switzerland, Austria-Hungary, Italy, and Japan, all of them (except Switzerland) now at war. The non-manufacturing world consists of all North America, except the United States; all of South America, all of Asia, except Japan; all of Africa, all of Oceania, and those countries of Europe not included in the above list of manufacturers. Thus the manufacturing world is now at war, the non-manufacturing world at peace.

"With these general conditions of interdependence of the

manufacturing and non-manufacturing sections of the world, and each section in need of the supplies which the other can furnish and able to offer its own products in exchange, we may expect a return to practically normal conditions, unless the war and the trade agreements which follow it shall produce such radical changes as to nullify the causes which have built up the trade current between these two great world sections."

One important fact, however, seems to have been overlooked by the members of The National Foreign Trade Council, or which was slighted in the press reports of the meeting, is that the nation which is best prepared to produce the articles which enter into the world's commerce will enjoy a decided advantage over other nations, whether or not crippled by the war. It must not be assumed, however, that England, France, or even Germany are unaware of this important factor in gaining and holding foreign trade. President Wilson in one of his war messages stated that Germany had approached a high state of efficiency in her economic life. The difficulty with Germany was her unwillingness to compete peaceably. But no matter how seriously those now engaged in the conflict may be crippled if they enjoy advantages which produce skilled workers and high standards in production, their setback will be only temporary.

It is assumed that our own country is fully aware of these important factors and their place in foreign trade. Nevertheless, it is well to emphasize them in connection with any consideration of the struggle for the markets of the world which will follow the close of the military struggle and to keep carefully in mind that skill in marketing will turn the tide of trade to those countries which are best prepared for the competition.

Mr. C. E. McGuire, of Washington, Assistant Secretary of the International High Commission, emphasizes this fact in his address to the meeting. Mr. McGuire also pointed out that "the problem that will confront the civilized world from the very moment that formal public and semi-public agreements begin to be concluded after the present war will demonstrate how inevitable it is that the great and representative producing classes should take a more direct part in constructing the rules of or-

ganized life—commercial and political—and even of the law. That problem is how to maintain everywhere in full force equitable laws and regulations pertaining to international commerce, to the formulation of which the banker, the manufacturer, and the merchant will contribute their practical knowledge, at the same time aiding the jurists and the legislative draftsmen to simplify and improve the form.”

NEW MEMBERS

Since the last statement appearing in the *BULLETIN* the following new members have been received:

Class “A”

The American Agricultural Chemical Company, 2 Rector Street, New York, N. Y.—Mr. Myron S. Hazen.

Armour & Company, Chicago, Ill.—Mr. W. S. MacArthur.

Mesta Machine Company, Pittsburgh, Pa.—Mr. Frederick W. Hyle.

Class “C”

Mr. Nathan M. Friedman, 1013 Prospect Place, Brooklyn, N. Y.

Meeting of the Pittsburgh Local Chapter

The last meeting of the Pittsburgh Chapter of our Association was held on May 9th in the evening.

Mr. Hedden presented a paper on “The Economics of an Apprenticeship.” The following are some of the interesting points raised for discussion.

- (1) What factors determine the rates of pay to apprentices?
 - (a) Supply and demand.
 - (b) Requirements for Entrance.
 - (c) Relation of Apprentices to Journeymen’s wages.
- (2) Should an Apprentice be able to support himself on his wages?
 - (a) What is a Living Wage?
 - (b) Is it the same for all localities?
- (3) What effect do wages paid apprentices have upon turnover?

The Pittsburgh Board of Education have loaned rooms to the Chapter for meeting purposes and were voted a resolution of thanks by the Chapter. The next meeting will be held on September 12th.

CO-OPERATIVE MANAGEMENT SCHEMES

A Survey of the Information Available on Cooperative Management of Industrial Institutions and Cooperative Sharing in Profits Reveals Only a Limited Number of Cases from Which to Judge Results. The Conclusion Reached is That Only an Individual Incentive Will Produce the Utmost Individual Results.

Profit-sharing is a phrase which slips very glibly from the tongue but few people realize that it is nearly as elastic and covers almost as manifold ideas as the word government. For example we have profit-sharing under the guise of a percentage of profit plan, under which the employer agrees to pay to his employes a certain percentage, fixed in advance, of the profits of the business. Again—under the same general title—we list systems of special distributions or gratuities, under which the employer voluntarily makes contributions to the employe's income in a great variety of forms, ranging from discounts on supplies purchased to cash bonuses, paid usually at the end of the year.

Then there are the various stock ownership plans, differing much in detail, but under which the employe invariably purchases stock in the employing corporation, pays for the same in instalments, and, in addition to the regular dividends, receives a bonus of so many dollars per share in consideration of his not disposing of the stock or not leaving the company's employ for certain fixed periods of time.

As a matter of fact hardly two plans are alike and no standard practice has been worked out of the experience of American employers. For example, apparently there is only one company trying out a profit and loss sharing scheme—the A. W. Burritt Company, of Bridgeport, Conn.

Among the oldest of all of the plans is one which has been adopted by comparatively few companies, although it is undoubtedly the logical development of the successfully launched profit-sharing scheme—namely, the system of coöperative management. At any rate it would appear the most practicable form to adopt by business concerns wherein a large portion of the work must be done away from supervision. In all such concerns the expedient of making the workman a partner with the management furnishes two incentives, first—it gives him an interest in the results of good work, and second—it puts him on honor to

ward his fellow workman to do his best whether adequately supervised or not.

The first profit-sharing scheme established upon this principle to attain great success was that of the Leclaire House Painting Company, inaugurated in Paris in 1842. In this case the motive in establishing a profit-sharing scheme was purely altruistic and the founder of the house went to great lengths in making the workmen of his Company owners of the stock in it. But the success of the plan was undoubtedly due to its utility as a corrective of careless workmanship, proved by the enormously increased earnings of the business after the inauguration of the scheme.

However, difficulty of supervision is by no means the sole source of the inception of this profit-sharing plan. In 1880 Mme. Aristide Boucicaut, widow of the founder of the famous department store in Paris, called the Bon Marché, made the principal assistants partners with her in order that she, inexperienced herself in the business of merchandising, might secure loyal service with less direction. The plan was later extended to all her workers. Today all of the Company's nine million dollars' worth of stock (with an annual turnover of approximately forty-five millions of dollars) is held by either present or retired workers.

The Henry Briggs & Company Collieries—an English coal mining company, pursued this plan for almost ten years during which period a truly marvelous diminution of discord was observed in a type of enterprise particularly liable to labor troubles. Another English firm, Foster Sons & Company, a house building firm of Lancashire, still pursues the plan.

In the United States the J. E. Bolles Iron & Wire Works gives its workers ten per cent. of the profits obtained from the jobs upon which they work. As its employees are sent to all parts of the city to install iron work, and are consequently very often out of the reach of supervision, the Company feels that much more rapid and careful work is assured by making the workers partners on each job.

The Dennison Manufacturing Company of Boston, Massachusetts, has authorized an issue of so-called "industrial partnership stock" to the amount of \$1,050,000. Such stock may be owned by active workmen still in service who in the previous year have received for their labors (a) \$1,200 or over and been seven years in service; \$1,500 and six years in service; \$1,800 and five years in service.

The limitation of the stock to workmen still in service is due

partly to arrangements in force as to voting, but chiefly in order that future increments of profit may be divided only among those who have helped to create them. If an employe leaves the Company or dies, his stock may either be purchased by the Company or converted into second preferred stock paying an unvarying rate of dividend and never receiving an allotment of new stock. Thus the retiring employe may receive and bequeath to others a capital amount representing his saved earnings, but he may not transmit a claim to increased future profits for which he and his descendants were in no way responsible.

Capital, in the Nelson Manufacturing Company, St. Louis, Missouri, receives 6% but no further share of profits. Employes receive profits, pro rata to salary in stock. Officers, managers and department heads are all employes and their incomes depend on their work in proportion to their importance and pay.

The members of the Danvers Cooperation Association (groceries and provisions) share equally in all profits.

The General Ice Delivery Company, Marshall Field Company and B. Altman & Company are also trying out this particular modified bonus system of profit-sharing.

The majority of students of this subject seem to feel in accord that most profit-sharing plans are probably impotent as direct stimulants to increased output. While the workman may hope that everybody will work hard enough to increase *his* share of the profits, he usually fails to grasp the point of his working harder to increase *everybody's* share.

Only an individual incentive will produce the utmost individual results and only a system combining profit-sharing with an individual incentive will result in the highest percentage of output of which the employe is capable.

Columbia University Will Train Factory Managers

A course in organization and management, to be open to technical men, employed in managerial posts, is to be given next fall by Columbia University, according to an announcement by the Department of Extension Teaching. The course will be given by Professor Walter Rautenstraugh, consulting engineer at several industrial plants. It will be essentially a study in manufacturing, but will consider commercial questions as well as technical problems.

Professor Rautenstraugh believes that industry and technical schools should cooperate. He thinks industries have failed to profit by scientific discoveries made in laboratories.

EDUCATIONAL FUNCTION OF INDUSTRIAL PHYSICIANS

Growing Recognition of the Importance of the Health of Workers as a Basic Factor in Industrial Prosperity

J. W. SCHERESCHEWSKY

Surgeon, United States Public Health Service, and President of the Society of Industrial Physicians.

(From the 100 Per Cent Magazine)

The most immediately important function of the industrial physician, that must ever be before him if he would yield the highest measure of usefulness in his sphere, is his educational function.

The rapid advance in the importance of the industrial physician is evident to all. Only a few years ago the "company doctor" held an unconsidered place in the staff of large industrial corporations. His duties were restricted to a comparatively narrow field, in which he was expected strictly to remain.

Recently all this has been changed. The growing recognition of the importance of the health of workers as a basic factor in industrial prosperity has removed the "company doctor" of the past from his position of relative obscurity, has inevitably placed him in the van of those forces which are now rapidly making for social and industrial progress.

In a country, such as ours, where social progress is made in waves, as a result of a performed state of public opinion, the creation of a body of such opinion by educational methods, is the primary step in social advances.

It seems obvious that the group of industrial physicians have it in their power, by concerted effort, richly to contribute to the formation of public opinion for the betterment of the health of workers.

The net resultant effect in the future from the efforts of industrial physicians in this direction will be proportional to their conception of their educational function and the coöperative application of their efforts.

THE FIELD FOR THE EDUCATIONAL EFFORTS OF THE INDUSTRIAL PHYSICIAN

Let us now examine in somewhat greater detail the field for the educational efforts of the industrial physician. It has been stated that, in any plan for education to improve industrial conditions, there are four groups to be educated. First, the

medical profession; second, manufacturers; third, workers; and last, but not least, the general public.

So far as the education of the medical profession is concerned, the opportunity of the industrial physician is very great. We lack data of many kinds as to the relation of occupations to disease.

By this is meant, not only the prevalence and prophylaxis of specific industrial diseases, but also data correlating the effects of industrial life upon the general health of the individual as well as the rate of decay, and the predisposition toward degenerative disease of the human body, caused by such existence.

The industrial physician must always be the chief source of this important information. Placed as he is in the very center of industry, his opportunities for observing workers day after day are unrivaled. The data on this point which have already been collected by industrial physicians have been of inestimable value.

We are badly in need of additional information, however, on such points as the morbidity rate in various occupations, the average age of onset of degenerative diseases in various industries, the effects of fatigue, of monotony, of "speeding up," exposure to excessive temperatures; in a word, the cumulative action of the several health hazards of industries.

Industrial physicians are in a position to impart to the medical profession information of priceless value on these points.

The collection and publication of data of this character is bound to give a fresh impetus to the study of disease, to bring vividly before our large medical centers of learning the necessity of special instruction and study of the occupations in relation to disease, promote the establishment of special clinics for industrial diseases, and to awaken the general medical profession to the importance of a field which hitherto has been sadly neglected.

We have here, therefore, an educational function of the industrial physician of the first importance.

PROGRESSIVE MANUFACTURERS READY TO COOPERATE . . .

We now come to the manufacturer. The day has passed when progressive manufacturers need to be convinced in order to place in operation equipment and measures for the protection of the health of workers. Yet the industrial physician has an important educational function to fulfil in regard to the manufacturer.

Requisites to the general introduction of measures for the betterment of industrial hygiene are, first, an exact specification of minimum requirements for various industries; second, cost data as to the operation of health service departments in industries; and, third, data as to the net profits derived from the organization of health service departments.

Here industrial physicians have a brilliant opportunity to contribute to the collection of such data. It is evident that if we are to make material progress the industrial physician must see, on the one hand, that no essential prophylactic measure is omitted; but, on the other, that no superfluous precaution is recommended.

Attention to this matter should greatly increase the authority and influence of industrial physicians with manufacturers, thus rendering them important sources of information, hence of education, to employers of labor.

THE IMPORTANCE OF PERSONAL HYGIENE IN HEALTH

Coming now to the workers themselves, it is thought that here the industrial physician will find his greatest field of influence as an educator. All the data so far collected show, first, the great importance of personal hygiene in the maintenance of individual health, and, second, the necessity for cooperation and a spirit of brotherhood between employer and employee.

Surely the field which presents itself to every industrial physician is unique in its breadth and possibilities. Placed as he is, a connecting link between worker and employer, he is evidently able powerfully to influence and promote the education of workers in matters of personal hygiene, as well as the proper and full utilization of measures for their comfort and safety which the industrial physician may have induced the employer to introduce.

Though, no doubt, he will often be discouraged in his educational efforts among workers because of indifference, neglect or ignorance, persistence in the end is sure to bring about tangible results.

The net effect of such educational efforts on the part of a large body of industrial physicians throughout the country must in the end be productive of momentous progress.

The point to be emphasized, however, is that such educational efforts on the part of the industrial physician are necessary, that he owes them both to his profession and to society.

SPREADING THE GOSPEL OF INDUSTRIAL HEALTH EDUCATION

Turning now to the general public, it will be found, when the

educational efforts of the industrial physician have been directed to the groups already mentioned, a large class of the general public will already have been included.

The position of authority and influence, which, in his own community, should accrue to the industrial physician if he fulfill his educational function, should enable him, by the various contacts which he will have formed, to spread the gospel of industrial health education beyond the confines of his own particular plant.

So much then for the personal efforts of the industrial physician. The newly organized body, the Society of Industrial Physicians, should also fully recognize the educational function it has to perform. We would urge that this aspect of the question be considered by the organization; that provision be made within this body for an educational propaganda.

Course in Americanism

A plan designed to establish a new branch of public school education was announced recently by the National Security League, 19 West Forty-fourth Street, New York City. The league's plan starts with what is practically a laboratory experiment in teaching, which will be conducted at Lawrence, Mass., in cooperation with the Lawrence Board of Education and the Massachusetts State Normal School.

The pupils in the school will be the teachers of the Lawrence public schools and Normal undergraduates. The teachers will be Bernard M. Sheridan, Superintendent of Lawrence Schools; John J. Mahoney, Principal of the Normal College, and two other associates, all working under the direction of Dr. Ephraim D. Adams, of the Leland Stanford Junior University. The object of the plan is to work out a practical system of patriotic education teaching which can be standardized and adopted in all the public schools.

In a statement, Dr. Adams said the plan would be worked out along these lines:

1. Examination and redirection of the school program for the purpose of finding and utilizing all possible civic contacts.
2. Utilization of the activities of the school for public, civic, and patriotic purposes.
3. Linking up the school with the community.
4. Establishing school duties and obligations as well as rights and privileges.
5. Making the actual teaching create a greater faith in and devotion to America and the basic principles of democracy.

The league also plans to reach 254 teachers' training camps.

NEW BOOKS WHICH MAY INTEREST OUR MEMBERS

"Profit Sharing, Its Principles and Practice," a collaboration by five representatives of industrial institutions, and professors of business administrations in Harvard and Northwestern Universities. Published by Harper & Brothers, New York. Price, \$2.50.

So far as the BULLETIN has knowledge this is the first book to be published dealing directly with profit sharing plans and the fundamental principles upon which such plans rest. Much has been written on the subject, but this is the first time the subject has been reduced to a book. The matter is, of course, elementary, and yet there is much of use to industrial executives in the volume. The subject of profit sharing is a very live one at the moment, and for this reason, if no other, the book should be added to the libraries of industrial corporations.

"Business Law," by Thomas Conyngton, published by the Ronald Press Company, New York. Price, \$4.00.

The book is a working manual of every-day business law. The author takes the subject of law and reduces it to a narrative which is very readable, and at the same time brings the general principles of equity and law forcefully before the layman. It is a well written volume by an author competent to treat his subject. One reads it as they would a biography or a novel, and yet the essential features of the different subdivisions of the statutes are clearly set forth. It is a book that should be in the library of all business institutions.

"Bookkeeping and Cost Accounting for Factories," by William Kent, Consulting Engineer. Published by John Wiley & Sons, New York. Price, \$4.00.

The author of this book is a member of the American Society of Mechanical Engineers, and an associate of the Taylor Society. Before becoming an engineer Mr. Kent was a bookkeeper and cost accountant, and during his working experience has had occasion to install systems of bookkeeping and cost accounting, and to audit books—an experience covering some forty years. From a careful examination of the book it is evident that the author is thoroughly competent to handle his subject, and seems to have gone into the industrial field thoroughly and

constructively in securing the data which he uses. It is quite probable that copies of the book could be secured from the publishers for examination. While the writer is not an authority on the subject treated, the book seems to contain valuable information, and if this opinion is verified the volume should be in all business libraries.

Reeducating Crippled Soldiers

Following extended hearings and a lengthy and serious study, the Senate Committee on Education and Labor, of which Senator Hoke Smith (Georgia) is chairman, has formulated a bill to solve one of the most important problems to grow out of America's participation in the war—the rehabilitation of America's fighting men stricken, maimed or otherwise debilitated in the fighting, to actual usefulness in after years. The measure will be one of the important items of the summer program in Congress. The need for laying the foundations of America's plans to take care of her injured manhood is a very present need.

Already the agencies of the War Department which must form the nucleus of the great organization for rehabilitation, re-education and vocational training for the wrecked manhood left in the wake of war have been established in the medical department of the army under Major-General Gorgas, Surgeon-General of the army, and Col. Billings.

The bill provides that men who are disabled under circumstances entitling them to relief under the war risk-insurance law shall be ordered by the Federal insurance bureau to follow such courses of rehabilitation as a Federal board of vocational education shall prescribe.

The War Risk Insurance Bureau and the vocational-education board jointly shall control the entire system. The purpose of the joint organization will be to help crippled, blind or maimed men of the American Expeditionary Force and of the army and navy generally into ways where they can render themselves completely self-sustaining.

Dr. Prosser testified that about 1 per cent. of the men sent abroad will require the benefits of the proposed reeducational service. Canada statistics disclosed, he said, that out of the 41,000 men sent home out of the 427,000 soldiers of the Canadian expeditionary force sent overseas, 3,500 have taken the course in vocational training. Dr. Prosser had been to Canada at the suggestion of the committee to make a study of the system. These are some conclusions he reached:

"First of all it is only national justice. We took these men in the flush of life away from the forge and the farm and sent them to war by the draft. When they return they will be shattered; some of them will be dismembered; most of them will have disabilities from which they will never fully recover as long as they live.

"It is the duty of the National Government to rehabilitate these men; to restore them as far as possible to a place equal the one they held when they heeded the national call and took all the risk and endured all the suffering they did in order to save this republic.

"Secondarily, there is the direct moral effect on the man. He must be 'bucked up,' he must know that he is not designed for the waste pile of life.

"Even before they have left hospitals they must be heartened and made to realize that there is something in the world they can do. There must be something with which they can occupy their time as citizens, no matter how generous the compensation paid them by the National Government. They must be prepared as the example of our allies has shown they can be prepared for happy and useful employment."

Vocational Education at Los Angeles

Dr. Albert Shiels, formerly Associate City Superintendent of New York City and now Superintendent of Schools of Los Angeles, recently announced that vocational education will assume first rank in the schools of that city during the coming year. "In applying our theories of industrial education to the great problem of present-day teaching, we shall have to learn when industry shall be called into consultation with public education and when it should be distinguished therefrom," said Dr. Shiels.

"Furthermore, we shall distinguish the thing we call manual training from that which we designate industrial education, realizing the place of each.

"So, too, must we discern between industrial and technical teaching. And having recognized industrial education for what it is, we must arrange a certain sequence adapted to those experiences which are intended for younger children so as to afford them a groundwork for election of special courses.

"To realize its purpose any program of industrial education, such as we must practice, must be a little more than industrial only; and in being industrial it must have the practical and cultural value of industry—it must be intensive, but never narrow."

NEWS ITEMS ABOUT OUR MEMBERS

There Is an Interesting Lot of Facts and Comment in This Department of The Bulletin for Our Readers. Of Especial Interest Is the Report of the Course at New York University in Which Our Association Cooperated and the Plan for Training One Hundred Thousand for the Army. Mr. Sydney W. Ashe, of the General Electric Company, Contributes an Interesting Account of Accident Prevention With Relation to Employment of Women.

The Corporate Schools' Course at New York University

Members of our Association will recall that The National Association of Corporation Schools cooperated with New York University in putting on a course at that institution designed to train those enrolled for positions as educational directors in corporation schools. Our Association donated to each enrolled student a complete set of the bound volumes of proceedings, and also the bound volumes of the monthly Bulletins.

Instruction in the course was given by the Executive Secretary of our Association. Classes were held every Tuesday evening and four points were credited to students who gained a passing mark toward graduation from the university. The total enrolment in the class was thirty-six, of which number, however, three were called into military duty before the course commenced. Several others entered military service during the first semester, two were transferred to other sections of the United States by the companies with which they were connected; one discontinued the course because of his health, and one left the course because he did not find the instruction was along the lines that he desired to work. The roster of active members included:

ROSTER OF ACTIVE MEMBERS

J. F. Kelly, Manager of the Training Bureau, The New York Edison Company New York, N. Y.;

Miss Mae F. Meiborg, Secretary and Assistant to the Vice-President, Clarence Whitman & Company, Wholesale Dry Goods, New York, N. Y.;

Leif G. Schreiner, Yeoman, United States Navy, Iona Island, N. Y.;

Edgar L. Oakley, Cashier and Bookkeeper, Lustig Brothers, Hat Manufacturers, New York, N. Y.;

Miss Helen F. McKay, National Bank of Commerce, New York, N. Y.;

George L. Johnston, Manager Employment Department, and Charles V. Fowler, Director of Technically Trained Men, Western Electric Company, New York, N. Y.;

Arthur Meunier, August Lotz, George Albach and George Albach, Jr., all of the Schwarzenbach Huber Company, Silk Manufacturers, West Hoboken, N. J. (Class "A" member of our Association);

Miss Lily Young (Chinese), a student at New York University, New York, N. Y.;

David E. Rice, Executive Secretary, School of Science and Technology, Pratt Institute, Brooklyn, N. Y.

Roger F. Evans (entered military service), J. H. & C. K. Eagle Company, Silk Manufacturers, New York, N. Y.;

Miss Laura Feige, Educational Director, Hahne & Company, Department Store, Newark, N. J.;

A. W. Knotte, Chief Instructor, United Drug Company (chain stores), New York, N. Y.;

Mrs. Elizabeth M. Mathews, Educational Director, L. S. Plaut & Company, Department Store, Newark, N. J.;

Prentice W. Towsley, Head of Cooperative Industrial High School Course, Public Schools, Passaic, N. J.;

Mrs. O. F. Shepard, Industrial Inspector, Department of Charities, New York, N. Y.;

Walter L. Emmett, Student, New York University, New York, N. Y.;

L. M. Crandall, Educational Director, Gimbel Brothers, Department Store, New York, N. Y.;

Mrs. M. O. Sturcke, Instructor, Continuation Classes, Gimbel Brothers, New York, N. Y.;

William Palmer, Educational Department, Yale & Towne Manufacturing Company, Stamford, Conn.;

Miss Rita Hilborn, New York, N. Y.;

Miss Gertrude B. Thayer, Educational Director, Jones & Baker, Stocks and Bonds, New York, N. Y.

Prior to graduation, Miss Rita Hilborn was engaged to have charge of the instruction of the women employes and the service department of the International Arms and Fuse Company, Bloomfield, N. J. Mr. Rice and Mr. Towsley were offered positions in the service of the Federal Government, but Mr. Towsley will probably become Educational Director of the Brighton Mills Corporation, a Class "A" member of our Association at Passaic, N. J. Mr. Emmett will enter Government service as an officer. Mrs. Sturcke will enter Government service as an instructor of

wounded soldiers returned from France. Miss Young will return to China upon completing her education in this country and specialize in industrial education in the chemical industries of her native land. Mrs. Mathews, on July 1st, becomes connected with the Aberfoyle Manufacturing Company of Chester, Pa., where she will organize and supervise their personnel and service department.

SERVICES OF GRADUATES IN DEMAND

At the close of the course each member of the class stated that he was satisfactorily employed, although some of the members have since taken other positions, due to larger salary offers. There seems to have been fairly active bidding for the services of the members of the class who graduated.

The class organized itself at the close of the second semester into an Alumni Association, and elected J. F. Kelly, of The New York Edison Company, President, and Miss Helen F. McKay, of the National Bank of Commerce, Secretary and Treasurer. The class will hold monthly meetings, and will cooperate in every way possible with future classes at the University taking the Corporate Schools' Course.

The following resolution was passed at the first meeting of the Alumni Association, and forwarded to the Executive Secretary of our Association:

THANKS OUR ASSOCIATION

"The members of the pioneer class in Administration of Corporation Schools in meeting assembled, feeling their great indebtedness to The National Association of Corporation Schools for having made the class possible and for the donation to each member of this class of a complete set of its proceedings and bulletins to date, which were used as text and reference books in the class work, and wishing to show their appreciation, do hereby tender their thanks to The National Association of Corporation Schools, through its Executive Secretary, Mr. F. C. Henderschott."

The class is active, and has appointed various committees, and will undoubtedly become an important factor in the work to which our Association is dedicated.

CHARACTER OF EXAMINATION REQUIRED

At the close of the first semester in February a written examination was given, and at the close of the second semester members of the class were requested to write a thesis in which would be incorporated instruction as to how to organize the educational

work of an industrial institution; that is, what methods would be used in determining the educational needs of the institution; how to organize classes to meet the training requirements; how to take advantage of the educational facilities of the community; how to develop and extend the educational and training department, including the engaging of instructors, finding of suitable class rooms, the use of the library, laboratory, inspection and lecture methods; the use of motion pictures and lantern slides, text-books, and other equipment, and determining the hours for classes; how to build the character of the enrolled employes, correlating the educational work with the employment, safety and welfare activities, devising a system of personal records, organizing graduates of the company classes into alumni associations, instructing in vocational guidance, and how to secure and utilize special lecturers.

The editor of the BULLETIN hopes to be able to publish some of these theses in future issues of the BULLETIN, believing that they will prove helpful to our members.

The average wage received by members of the class upon graduation was about \$3,000, ranging from \$2,000 to \$4,000 (students at New York University not included).

The course will be given again next year, and the officials of the University seem to be well pleased with the results secured. The instructor of the course has been made a member of the faculty of the University, and has been active in the Management Courses. The fee charged for the two semesters or the complete course is \$24.

Will Train One Hundred Thousand for the Army

The committee appointed by the War Department, and known as the Committee on Education and Special Training, of which Mr. J. W. Dietz, President of our Association, is a member and Mr. C. R. Dooley, of the Executive Committee of our Association, Educational Director, has determined on a definite program of work which is here outlined.

The functions of the committee as stated in the order creating it are:

To study the needs of the various branches of the service for skilled men and technicians; to determine how such needs shall be met, whether by selective draft, special training in educational institutions or otherwise; to secure cooperation of the educational institutions of the country and to represent the War Department; in its relations with such institutions; to administer such training in colleges and schools as may be adopted.

The first step was to find out how many and what kinds of technically trained men were needed. Estimates were obtained from the staff corps and the index of occupations by groups prepared by the Committee on Classification of personnel of the Adjutant General's office was also of much assistance. The lists give a layman a new idea of what a modern army is.

For instance: 21 different kinds of carpenters are needed; 13 under the general head of lumbermen; 11 under structural steel worker; 3 under physicist; 14 under painter, beginning with artist; 8 under photographer; 32 under machinist; 10 under civil engineer; 8 under mariner and boatman; 9 under gunsmith; 12 under clerical worker; 14 under blacksmith; 7 under chauffeur; 7 under tailor; 5 under writer; 8 under printer; 16 under auto mechanic, and many other trades, and two kinds of farmers, one just plain and the other stock raiser. Among those occupations of which larger numbers are required are carpenters, wireless operators, electricians, general mechanics, telegraphers, and engineers and firemen.

It was decided by the committee to undertake to train no civilian volunteers, but to make up the classes wholly of enlisted men, as these would be under military discipline and on pay and subsistence during the period of instruction. A system was worked out in detail for using colleges and engineering schools of the country. The attitude of the educational institutions on the subject was patriotic in the extreme.

It is expected that the technical courses will occupy each man about eight hours a day; that is intensive training. The greater part of the instruction will be of a fundamental or primary character, to give the men some practical skill in the simple underlying operations of carpentry, blacksmithing, metal working, etc. The committee will provide definite outlines for all the work, which will be under its general supervision, and while the men are at the schools they will be under the military control of officers assigned there.

The plan is to train the men in three shifts of two months each—May-June, July-August and September-October. They will be sent in units of not less than 100. Few units will number less than 200 or more than 2,000. The largest number to be trained by any institution in this period, according to the present outlook, is at the University of Texas, which will have 5,000. Among the institutions with which contracts have already been closed are New York University, the University of Chicago, the University of Virginia, Iowa State College of Agriculture, Purdue

University, the University of Pittsburgh, Carnegie Institute of Technology at Pittsburgh, the University of Michigan, Tufts College and Wentworth Institute of Boston, Mass. A start has been made ahead of schedule; about 7,500 soldier students are now under training at different schools. One of the first to enter upon the work was New York University, though the number taken care of there is not large owing to the difficulty of the housing problem.

The number of men to be trained at these schools by November 1st is roughly 90,000, according to present arrangement, with the prospect of a large increase. Many of the men needed cannot be prepared at the schools, as none of these possesses the equipment necessary for teaching certain occupations, as, for instance, the work of railroad engineers and firemen and workers at gas plants. Cooperation from the industries will be sought in training of this kind. It may also be necessary to set up special schools.

The men are selected on a double basis, partly voluntary, with the aim of giving those subject to draft who have had a preliminary training in a certain trade or who desire to take up a certain trade opportunity to follow their bent while in the army. Thus the Provost Marshal General's office is notified that so many of such and such trades are wanted, and it in turn communicates with draft boards. The quota desired is filled up by the draft boards, partly with men who volunteer to enter service ahead of time in order to take advantage of the opportunity, partly from men adapted or inclined to the work and subject to immediate call. From now on the Provost Marshal General will collect a new group for the school every few weeks.

Accident Prevention with Relation to Employment of Women

BY S. W. ASHE, GENERAL ELECTRIC COMPANY

Judge Gary estimated that it would require 5,000,000 men and \$100,000,000,000 from America to win the present war. We have a population in this country of over 100,000,000 people of whom 40,000,000 are wage earners. It has been stated that for each man on the firing line, it requires five additional workers to supply his needs of guns, ammunition, clothing, food and all the other material incident to fighting. A total of 30,000,000 people in the near future will therefore be required to do our part in this conflict. This will leave but 10,000,000 workers for other than war industries. According to statistics compiled by

the Section on Industrial Training for War Emergency for the Council of National Defense, eight per cent. of the female population of this country are engaged in products directly relating to war, whereas in England, twenty-five and three-quarter per cent. are thus engaged. To bring the proportion up to that of England, it will be necessary to add over 8,000,000 women to the war industries during the next few years and fully two million of them must enter the coming year. England has been particularly successful in the employment of women and there is no reason why this country cannot be equally successful, especially as there are many industries where female operatives have already been used on mechanical operations for many years. Every one realizes that the present war is a "Woman's War" and we will have to rely on their patriotic interest to a very great extent in order to win. That we can count on the women to respond is evidenced by a recent campaign which was carried on in New Haven largely under the direction of Mr. Otterson, of the Winchester Repeating Arms Co. It was found that many additional women would be necessary in the industry and due to the difficulties of housing, it did not seem desirable to attempt to rob other communities of their help, so an endeavor was made to enroll the additional help from the New Haven territory. Within a period of less than a week, five thousand women volunteered their services for the period of the war. This is typical of the spirit with which our women are planning to win the war, and in view of the very urgent need of them for industry, this general spirit of cooperativeness is a great blessing to employers of labor in the present war emergency.

CHARACTERISTICS OF FEMALE OPERATIVES

Female operatives have certain valuable traits for factory work, where the materials handled are not heavy, and where the operations are not complicated. To the average female factory worker, her job is a stepping stone to the time she marries. She is interested in her work therefore, in a large measure, more for the immediate returns it brings in than with any idea of making a future out of it. She concentrates better, therefore on ordinary work, and does not lose interest readily as sometimes happens to many men. With her greater tendency to concentrate, there is less tendency to accidents. She is naturally alert and gets out of danger quicker than men, those men particularly with sluggish natures. At one time the writer made a comparison between women and men engaged in the same class of

work, namely winding small transformers, and was surprised to see that the tendency to accidents among women on this class of work was less than one-third as great as among men. While figures covering the total employes in an organization are deceptive, due to the many heavy tasks performed by men rather than by women, there is such a wide difference between the number of accidents occurring to men rather than women that the figures are worthy of interest. As an illustration, an organization employing over 6,000 employes, about one-sixth of whom are women, the following major accidents occurred from 1914 to 1917:

YEAR	MEN	WOMEN
1914	563	10
1915	245	8
1916	627	24
1917	945	45

It should be realized in considering these figures, however, that most of the operations performed by the men are much heavier than those performed by women.

THE NEED OF A FACTORY TRAINING SCHOOL

Statistics show that accidents occur largely to new employes, those in point of service for less than six months. This is due partly to the unfamiliarity of a new man to the dangers of his new job. Take a woman from home, put her in on a good sized machine with which she has had no previous contact, and at first she is afraid of it. Suppose, however, that a small separate room containing a few machines is set aside in the factory for training purposes. This school should be in charge of a man, a foreman who is a gentleman and who understands thoroughly the handling of female help. This is important, for the success of the school depends largely on this man. Under this foreman, should be a woman who has had considerable shop experience and at the same time has the happy faculty of getting along with other women. She must be a woman's woman. She should be able to secure the confidence of the girls whom she trains, she should be the first one that the new employes meet. This will give her an opportunity to carefully explain to the new operator the machine upon which she is going to work, to show her how simply the machine runs, what little effort is required to operate it, what few parts of it the girl has anything to do with after all, how much easier it is to run than a sewing machine. She can also be taught the minimum number of operations required to turn out the products, she can be given the correct

viewpoint toward her employer and can be saved from learning the faults which she would be the first to learn if placed directly in the shop upon being engaged. While the girl is in the training room, she can be made acquainted with the various social agencies in the organization and can be encouraged to participate in all these activities. We should bear in mind that the social side appeals very strongly to women. In our Mutual Benefit Association we find that while the insurance feature appeals particularly to the men, the social side appeals more strongly to the women.

The New England Section of the Industrial Training for the War Emergency of the Council of National Defense of which the writer is chairman is doing what it can to encourage the further introduction of factory training schools as a war emergency in the New England territory. Such schools have been started at the Scovill Mfg. Co., Waterbury, Conn.; the Taft-Pierce Co., at Woonsocket, R. I.; the Norton Grinding Co., of Worcester, Mass.; the Brown-Sharpe Co., Providence, R. I.; other schools are under consideration and will shortly be introduced. One of the most successful schools of this type which we have described in the February, 1918, issue of *The National Association of Corporation Schools BULLETIN* on page No. 74, is that maintained by Mr. Carpenter, of the Computing and Recording Machines Co., at Dayton Ohio. This school is operated in conjunction with the factory, manufacturing the Russian type fuse. Of the total force, over five thousand are women. In from ten days to three weeks, Mr. Carpenter stated they turned out from this school girls who could operate heavy hand turret lathes on work requiring great precision. These girls when entering the shop, attacked their machines with vigor and confidence and it did not take more than three weeks for them to reach the high average of work shown possible by their time studies. In addition to training the new operators, old operators were also put back in the shop and trained so that within two months the average production of base forgings, for instance, was increased from twenty-four pieces per hour to fifty-five pieces per hour. It can be seen therefore, that the factory training school besides having many advantages from the safety standpoint has further decided advantages from the production standpoint.

SPECIAL SAFETY REQUIREMENTS FOR WOMEN

While the tendency to accidents among women as before

stated is much less than men, there are two special dangers which we must always guard against in the employment of females, namely, the danger from their hair getting caught in moving machinery and the danger to their clothes in case of fire. While it is an established fact that in all cases where buildings have been equipped with sprinkler systems and pressure on the systems maintained there has never been loss of life in the case of a fire, still it is important where women are employed to avoid panics, that fire drills should be regularly maintained. Quite recently a special type of bloomer over-all uniform has been developed which is quite attractive, is not suggestive, which gives the girls considerable freedom of action and at the same time eliminates the dangers from loose dresses. While in some places objection has been raised to their use, still these objections are being broken down, with the new type of attractive uniforms which have been developed with the blouse effect being tied in tight at the waist. Small ties used in conjunction with the blouse add to the attractiveness, but these ties represent an extra hazard, which in the writer's opinion should be eliminated. Many attractive forms of tight-fitting caps costing about fifteen cents have been developed and it is not difficult to encourage women into the wearing of these caps. As girls take rather readily to first aid and nursing service, it is easy to arouse a personal interest in them for safety work through first aid instructions and accident prevention method.

To Train Teachers for Corporation Schools at Carnegie Institute of Technology

The Pittsburgh Chapter of our Association recently appointed a committee, with Mr. Frederick W. Hyle, of the Mesta Machine Company as chairman, the task of the committee being to ascertain if a course could be given at the Carnegie Institute of Technology where teachers might be trained to enter the corporation schools in Pittsburgh and vicinity. The committee reported favorably and submitted the following outline for the course.

PRINCIPLES OF TEACHING

List of good books and authors with topical and bibliographical references.

Notebook containing fundamental principles of good practice.

Outlines of experimental procedures for classroom applications.

PSYCHOLOGY OF TEACHING

Fundamental conception of learning processes. Effect of age, nationality, social environment, and physical condition.

Personal equation as existing between teacher and pupil.

Description of Trade Tests as used to distinguish novices, apprentices, journeymen, and experts.

VOCATIONAL EDUCATION

Types of industrial and vocational education now being carried on. Legal aspect, considering child labor and compulsory education laws. Possibility of cooperation with Public Schools.

ORGANIZATION OF COURSES

Pattern making, machine shop practice, founding and molding.

Masonry and reinforced concrete work, shop carpentry. Electric wiring and power work.

PEDAGOGY OF ENGLISH AND ARITHMETIC

Discussions of existing methods of teaching these subjects, and possible applications to the apprentice school problem.

They Judge the Company by Your Letters

AN INTERVIEW WITH J. F. JONES, SALES MANAGER, INTERNATIONAL HARVESTER COMPANY OF CANADA, LTD.

(From *The Harvester World*)

Every man outside the Company you write a letter to judges the Company by your letter. Couple that with the fact that good will with the public is the most valuable asset any company has and you can see that every letter directed outside the Company deserves to be written with all possible intelligence and courtesy.

Some time ago, a farmer needed some chain links for a drill he had bought from his dealer through this Company and he wrote for them to one of our branch houses.

"We don't carry those links in stock," was all he got back in reply—not a word of explanation as to why we no longer carried those repairs and no directions as to where he might get them. This letter from our branch house man was forwarded to the factory which made the drill and finally wandered into the Harvester building. The man who wrote it, instead of impressing one of our customers with the real service policies of the Com-

pany, gave him every reason to believe that we didn't care whether he ever got his grain planted or not.

Instances of this kind are rare, but it makes us uneasy to think they exist at all. Another man, after corresponding with a customer about the return of a machine finally wrote, "Yes, send the machine back. We never thought you'd pay for it, anyway."

There ought to be a business criminal code against letters like that—and there is. No company could endure with which letters like that were not an exception.

Some of our branch houses occasionally feel justified in losing patience with the home office and recently one of the sales managers had occasion to reply to a letter with this simple comment: "I am sorry you wrote me a letter like this and I am returning it to you because we have no file in this office for discourteous letters."

The whole world right now is wrought up to a state of high nervous tension. Every man in the Company is doing more than his customary share of work and if we don't watch out, we will feel like coming back strong at what we consider unreasonable demands or unjustifiable complaints. But it is just the time to be calm and courteous. It is just the time to let the farmer and the dealer and every one else we write to adjudge us fair and square, and men of courtesy and understanding.

The men in charge of this Company's business in the field and office are men who have been developed in the knowledge of sales and other technical information concerning this business. They have not necessarily been trained as good letter writers, but it is a thing that can be learned the same as how to sell a machine can be learned. A large school of letter writing has been developed recently in New York and the substance of what they teach in this school is, don't write a letter as you would like to write it but as the man getting it would like to read it. Every man can work that principle out for himself and become a good letter writer. It is simply a modern business edition of the golden rule.

Keep the sting out of your letters and put the sunshine and friendliness in. A man getting one discourteous letter from one man in this organization will treasure everlasting ill will against the entire Company. He will show the letter to his friends and develop a whole zone of misunderstanding against the Company. It would be impossible to calculate the loss in dollars and cents to the Company of one such letter. Courteous letters written by a man who takes the trouble to understand human nature will

multiply and pile up the Company's assets of good will on every hand.

Personnel Activities of The Thomas Maddock's Sons Company

Mr. O. C. Short, Educational Director for The Thomas Maddock's Sons Company, pottery manufacturers at Trenton, N. J., reviews the work of their educational department and what had been accomplished up to one year ago:

"Class work had been organized and made effective for the apprentices and for the day wage men; Evening School classes had been held; the regular series of monthly lectures had been held; the work with the foreign born had gone forward and a number of these men had taken out citizenship papers. We found at that time that the progress made during the year then ending had been better than in the past years."

In his résumé of the past year Mr. Short says:

"Early in the fall our club room was moved to more comfortable, larger and more attractive quarters. A wider use of the lunch counter was inaugurated. More pool tables, checker boards and other forms of recreation made the lunch hour more a period of refreshment and relaxation. Reading facilities with magazines, library books and bulletins have been made possible with the cooperation of the city library and the employes have made use of the opportunity afforded, not only to read during the noon hour, but have also taken advantage of the loan system.

"Afternoon lectures and evening entertainments have been held and well attended. The series of monthly lectures have been of high order and of timely and patriotic nature and have met with a splendid response on the part of our people. Through the hearty cooperative spirit on the part of the foremen a class was organized for Wednesday at 4:15 P.M. to study subjects of a general educational nature. Arithmetic occupied most of the time and civics and civil government took up the rest of the time for the past year.

"The women of the plant were organized for general educational work on Thursday at 4:15 P.M. This class was very soon reorganized into a First Aid class, under the auspices of the local chapter of the Red Cross.

"It was found that a number of the men who had secured first papers under our system of registration had reached the time when they should apply for second papers, but needed instruction in the requirements of citizenship. Consequently, Thursday

evenings were set apart for class work along this line. The class was well attended and splendid results were attained.

"So, in spite of the disturbed state of the industrial and public mind the past year has been a success along the educational lines. We reached a greater number of men and women in the plant in an effective way and we feel that the Educational Department is accepted by the employes in general as a very vital part of the organization."

How to Get the Cooperation of the Shop Foremen and Workmen in Training Apprentices

F. W. HYLE

(Of the Mesta Machine Company)

During the period which a boy spends in learning a trade he finds arising many points and puzzling problems which need almost immediate solution. More interest will be developed and better results accomplished if assistance is given rather than let the boy work out his own solution.

To explain, in a great many cases boys at the start of their course lack initiative or the power to go ahead, while other boys, who possess this faculty, are able in a way to train themselves. It cannot be said, however, that the boy who is a little slow will not make a good man. It often happens that such a boy, if given a little assistance, will develop into a better man. In order that these boys receive assistance, the foreman and workmen must cooperate, as it is impossible for the training department to work single-handed with any degree of satisfaction. How, then, are we to secure this cooperation?

ASSISTANCE OBTAINED FROM APPRENTICE SCHOOL

A number of the large concerns have provided schools within their works. In order to train the apprentice's mind—that is, to make him think—the work in the school is so laid out as to develop and hold the interest of the boy. This interest is going to be carried into the shop. The boys are taught to figure things out for themselves. The foremen and workmen are going to notice these results and will gradually become interested in what is going on in the school. This information will usually be obtained through the boys and, therefore, as the interest must precede the action, we have advanced one step toward securing the assistance of the production department.

THE INTEREST OF THE APPRENTICE FOREMEN

The apprentice foremen, or the party responsible for the

training of apprentices, is also responsible for the necessary development of cooperation and can increase or decrease the general interest. He must know the results, or rather the progress, which the boys are making in the shop, and as he cannot be with them all the time, will, therefore, have to rely upon the foremen for reports. As he passes through the shop from day to day, interviewing the foremen, an inquiry from a workman as to this boy or that boy's progress will gradually create an interest with the men, thus developing another point toward securing cooperation.

THE ASSISTANCE DEVELOPED FROM CONFERENCES

There must be a systematic schedule for transferring apprentices from job to job. The Production Department must be consulted regarding such a schedule so as not to interfere with the production when a change of schedule is necessary. The points can more readily be thrashed out in conference and by the right tact and influence the apprentice foreman can create a feeling which will draw the two departments together.

WHY WE SHOULD TRAIN APPRENTICES

During normal times, previous to the present crisis, any number of concerns did not look with any too much favor upon training apprentices, regardless of the fact that there was a wave going over the country of the reverse trend.

They did not stop to realize that they were going to need good all-around men in the future. They did not want to be bothered with the boys. Then too, some number of concerns had apprentices but no courses.

The present crisis has shown the need of all-around men and good men, and there is going to be more trained men needed. There is a tendency in the above class of shops under such conditions to try to develop men or run boys through an apprenticeship of very short duration and expect results. Such policy is very poor as time is required to teach a trade. If you want a good man today, the time to have hired that man was not yesterday or last week, or last month, but four years ago, and then train him. We find today that the demands are greater than the supply. This holds good in all things, even so does it hold in the manufacturing plants and the trades. The trained men are few in proportion to the demand. In order to get good men we are compelled to pay higher rates and in many instances paying rates far in excess of ability. Due to the need of tradesmen, men of other vocations, seeing the possibility of making more money,

have represented themselves as tradesmen and have proven to be otherwise thus causing considerable worry and trouble before they are finally dismissed.

Experience has taught many things which in this case is the need of training men. It is the foremen who appreciate these conditions more than the workmen and, therefore, will be more easily influenced to cooperate. Once the atmosphere of cooperation has been established a great obstacle has been removed in the training of apprentices.

The Economics of the Apprenticeship Course

C. E. HEDDEN

(Of the Pittsburgh Local Chapter)

It has become rather common to hear the present referred to as the "scientific age." It certainly is the age in which the man who made Missouri famous is a most popular person. It is quite possible that the prevalence of the spirit of "show me" has had some effect in stimulating science to greater efforts in the attempt to prove its theories in many fields of work.

In the last analysis, economics may be considered an exact science. Certain economic premises will, under certain conditions, yield definite and predictable result. Even where the continually variable human element enters into the equation, the prediction of recurring social phenomena, dependent upon economic condition, is possible with considerable accuracy.

It should, then, be possible to apply some of the simpler rules of economics to such a movement as that of the apprenticeship training of industrial workers, and draw some fairly safe conclusions as to results both for the worker and for those for whom his training is supposed to prepare him to work.

Speaking specifically of the corporation school apprenticeship section, it will be possible, at first, to consider the matter under four separate headings, as follows:

1. What the apprentice pays.
 - (a) The difference between apprentice rates and the various earned rates for other work for which he is qualified.
2. What the apprentice receives.
 - (a) Money.
 - (b) Class instruction.
 - (c) Skill.
 - (d) Increased earning capacity for the future.
 - (e) Steadier employment for the future, etc.

3. What the company pays.
 - (a) Money.
 - (b) Cost of class instruction.
 - (c) Cost of shop instruction.
 - (d) Difference in value of machinery when used for instruction as compared with production.
 - (e) Spoiled material and breakage.
 - (f) Other overhead charges.
4. What the company receives.
 - (a) Production.
 - (b) Skilled workmen after completion of the course.

A careful economic comparison of relative values in these groups would discover the relative advantages of the course to the worker and to the corporation, and in the event of a significant discrepancy or inequality in the results would indicate the need of definite revision or probable failure.

Economists tell us that a thing has value or represents wealth just insofar as it is exchangeable. Nothing has value for which no demand exists. Thus an apprenticeship training, no matter how complete, would be valueless without an existing demand for the services of the trained workman. Correlary to this, we may say, then, economically, the value of an apprenticeship training is exactly equal to its exchangeable value. This indicates the importance and economic significance to the worker of the corporation's evaluation of the apprenticeship training. This becomes particularly pertinent when the training happens to be such as to prepare for a somewhat narrow field of work.

It is here that the Missourian desire to "be shown" becomes particularly insistent. Bearing constantly in mind the type of boy with whom we are dealing it is not hard to realize that "deferred dividends" in the form of class and shop instruction, manipulative skill, steady employment, etc., do not appeal as strongly as more immediate returns might. Financial returns and the opportunity for promotion within the organization of the industry are primarily the bases upon which the apprentice judges the economic value of his course. And so, when he says "show me," he wants to know just what financial and promotional opportunities the corporation assures its apprentices. And is this not fair? Are we not realizing to an ever increasing degree that the years of preparation are all too few to be spent in unprofitable experiments?

In the majority of cases the question of financial progress has been pretty definitely mapped out while applicants are frequently told that their promotion will be limited only by their

own ability and industry and are often reminded that the general manager or the president started as an apprentice.

But the desire to "be shown" is quite properly mutual. It is clearly proper that the corporation should expect some guarantees of the value of its investment in the training of its apprentices. It would be distinctly poor economics to spend the time, money and effort necessary to produce a trained workman, and discover that the training had failed to produce the workman. And so the corporation representative, charged with the responsibility of selecting and training apprentices, picks not only the most promising material, but demands evidence of good faith and businesslike intentions from all candidates.

A natural question arises as to the status of the economic equation at the time the prescribed training course is finished. Is there still an uncompleted obligation in either direction? Has the pay received by the apprentice during his course of training been so small that the corporation owes him a term of employment at a higher wage rate? Or has his training cost in excess of his productive efforts an amount sufficient to warrant the corporation in expecting him to remain in their employ, at least, long enough to make up, at his increased rate of productivity, the inequality in the equation?

In the opinion of the writer, the most sound economic basis of reckoning would be that in which the equation is supposed to be balanced at the completion of the course. Some instances are known where this is the case, and, doubtless, a number of others also aim as nearly as possible to make the trade apprenticeship training course a self-contained economic unit; self-supporting, but without profit.

Mention should be made of the economic value to both company and apprentice, of the publicity obtained for each through the other. The advertising resulting from a large registration from widely separated sections of the country is of considerable value to an industrial corporation, while the fact of having satisfactorily completed the apprenticeship training course with a reputable corporation guarantees to the graduate a prestige not to be lightly considered.

Other points might be, and doubtless will be, developed from these very brief and incomplete suggestions. While varying conditions may necessitate a somewhat various arrangement as to details, the general fact remains quite evident, from its persistence and successful progress, the corporation apprenticeship training course is founded upon safe economic basis.

Factory Service Workers in France

The BULLETIN is favored with an article descriptive of the association of factory service workers under the auspices of the Ministry of Labor of our allied nation. France found that the employment of women in factories, a phenomenon which has taken place since the war in so great proportions, presents some of the gravest moral and economic problems of the present day.

The separation from home, the intensive labor, the conditions of business life added to poor hygiene, have too often as the result, overwork, immorality, and alcoholism.

One of the most urgent reforms for which to secure general adoption, not alone in the State factories, but in private industries—a reform which supports all of the others, is the creation of “service workers,” following the example of the lady superintendents who have given such marvelous results in England. Competent observers visiting the munitions factories in England have been astonished at the good deportment and contented air of the English women workers.

The captain of industry whose time is taken up with the technic and commercial part of his business is not able to follow in detail the needs of his work force, especially the women workers. The service worker completes his task. Being of the same social position and on an intellectual footing with the manager, she relieves him of numerous cares resulting from the proper supervision of women workers.

Being a woman of good education, well informed on the life of the workers, and having received special instructions, the service worker is likely to have the energy and the reserve necessary to impose her authority with a spirit of justice and kindness; in a word, with the qualities which will make her respected and loved.

She does not employ the workers, not having the necessary training to judge of their technical skill, but she may be allowed to examine into their wants and make studies which permit the technical men charged with employment to reject the applicants physically too weak or dangerous to the moral health of the work force. In agreement with the foreman, she may intervene also in the formation of the work force so long as her action in the matter is subordinated to the technical requirements of the work in hand.

In the shop, the role of the service worker is discreet supervision. She watches over the conduct of the workers, over the cleanliness of the shop and the hygienic condition of the shop.

She points out to the factory manager, without ever directly intervening, any faulty condition, any woman submitted to too hard labor, particularly the woman in a delicate condition or nursing a child. She submits to the employer proposals for the betterment of conditions.

It is outside of the work shop that the activity of the service worker expresses itself most effectively. She hears the complaints of workers and passes them on if there is reason to do so. She settles differences. She has the definite supervision of the dressing rooms, the lavatories, etc., as well as of the departments connected with the factory, such as the canteen, hospital, rest room, the nursing room, or the nursery. She is permitted to choose the personnel and supervise the administration of these departments.

She is the intermediary designated for social work which seems to bring about better conditions in the factory or near the factory, the establishment of canteens, nurseries, shower baths, etc. In case of illness she visits the sick worker. She suppresses disorder and looks out for the elimination of women who create the spirit of unrest or whose misconduct is evident.

In daily contact with the workers, she is in a position to become their intelligent counselor. Her presence assures order and contentment and often suffices to silence any unjustified complaint or spirit of revolt.

The Association of Factory Service Workers has just established in Paris, 8 rue de Penthievre, VIII, under the auspices of the Ministry of Labor and the Ministry of Ordnance, *The School for Factory Service Workers*.

The payment of service workers varies according to the size of the factory, but can hardly be less than \$75 a month.

Activities of the Mutual Aid Society of R. H. Macy & Company's Department Store

Sparks, the house organ published by R. H. Macy & Company, one of the largest department stores in New York, gives the following résumé of activities conducted by their mutual aid association.

Medical Attention.—Dr. Rutledge, or Miss Degnon, if you prefer a woman doctor, may be consulted any day.

Nurses.—Miss Andrews and Miss Moore, registered nurses, with Miss Wanamaker to assist them, are in constant attendance to administer to your aches and pains.

Visiting Nurses.—Miss McGuire will call on you at your home if the association is notified of your illness.

Dental Attention.—Dr. Story, an expert, will do any necessary work at charges much lower than you would pay outside.

Chiropody.—Dr. Wohlberg will relieve your aching feet. Don't let those corns or callouses bother you any longer.

The Eastern Manufacturing Company Concerned with Health of Its Employees

The officials of the Eastern Manufacturing Company, manufacturers of paper, about two years ago caused a physical examination to be made of nine hundred and sixty of its employees which disclosed that there were forty-four persons employed who were affected by lung tuberculosis—eight were advanced cases and thirty-six were of the earlier types.

These forty-four cases were all put under treatment varying according to the amount of lung disease present. Thirty-six of these are now working full time at the Eastern, and are much improved over their condition of two years ago, two have died of tuberculosis, the remaining six have secured positions out-of-doors or light work, which is now compatible with their strength.

Labor Turnover on the Pennsylvania

The Pennsylvania Railroad kept a record of the labor "turn-over" for the ten-day period from May 27 to June 5, which produced some interesting figures, especially in respect to the number of women who entered the service. On May 27 there were 5,682 women on the payroll and on June 5 the number had increased to 7,227. The gain of 1,545 was over and above the number which left during the days when the record was kept.

During the period 4,477 employees left the railroad's employ, and 5,122 new ones were employed. These figures applied to male workers, and the net gain occurred entirely during the last two days, indicating a sporadic movement of labor. The record dealt with divisional forces and excluded the workers in the general offices. As the gain in the number of women employees was 1,545 and the increase of male workers was 645, the record shows that there was a loss of 900 male employees in the ten days.

NOTES

The Chase, a monthly magazine published by the Chase National Bank of New York, contains an account of a meeting of

the officers of the bank with department heads and states that "the purpose of the meeting was to discuss the best methods of co-ordinating various branches of the work and a discussion of the system generally." It was felt by the officers of the bank that the pressure of work during the day made it impossible for concentrated discussions of the bank's problems and the meeting was arranged. The plan is a most excellent one.

The Strawbridge & Clothier Company maintain a pension fund association on behalf of the employes of their store. From May, 1912, to April of this year the total amount paid out for pensions and aid was in excess of \$26,000.

Mr. Henry Kobick, of the Commonwealth Edison Company's Employment Department and a Class "B" member of our Association, has entered the aviation section of the country's military service.

The Government's Bureau of Education has issued Bulletin No. 39 (1917 series) on "Teaching English to Aliens." The Bulletin is a bibliography of textbooks, dictionaries and glossaries and aids to librarians. Those of our members who have the problem of teaching English to their alien employes, or to their foreign-born employes who are American citizens, will find this document very helpful. Copies may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at ten cents per copy.

The employes of Henry Disston & Sons, of Tacony, a suburb of Philadelphia, have a unique association known as "Fathers Association." The Association holds monthly meetings and discusses problems that the fathers are interested in.

The Burroughs Magazine, published by the Burroughs Adding Machine Company, contains in its May number an interesting article descriptive of why people apply for employment with that company. A careful reading of the article leads to the conclusion that, first, applicants must pass a physical examination; second, that every position leads to promotion if the employes will work for promotion; and, third, that the working conditions at the Burroughs Company are as nearly ideal as they can be made.

Armour & Company recently announced that they had changed from a closed corporation to a stockholding concern.

The thirteenth annual commencement of the Casino Technical Night School, operated by the Westinghouse Electric and Manufacturing Company, was held on Tuesday evening, June 4th. A large proportion of the senior class has entered Government service and those who remain to graduate will mostly engage in some of the war industries.

The girl employes of the Eastman Kodak Company were recently addressed by Dr. Josephine Kenyon on their duties during the war. There was a large gathering present to hear the lecture.

T. H. Bailey Whipple, of the Westinghouse Electric and Manufacturing Company, and well known to the pioneer members of our Association, is developing an instruction course on the "Principles of Business Letter Writing." The course is being published in the "Sales Letter," the house organ of the company. Bob Harvey, formerly of the Commercial Training School of the Westinghouse Electric and Manufacturing Company, is now in the aviation branch of the Government's military service.

Our friend, Andrew Deer, of Sydney, Australia, and an Associate Member of our Association, favors the BULLETIN with an account of a new bill which was drafted by the Trades and Labor Council of that city, the object of which is to promote the training of apprentices. The bill is now before Parliament, with good prospects of becoming a law.

Some idea of the magnitude of modern industrial corporations can be gained from the following figures given out by the Pennsylvania Railroad System: Two hundred and one thousand three hundred and fifty out of a total of two hundred and forty-nine thousand seven hundred and ninety-five employes, or more than eighty per cent, subscribed to the third Liberty Loan for a total of twelve million sixty-one thousand nine hundred dollars. Besides native-born Americans, over thirty different nationalities are represented among the purchasers.

Clarence H. Howard, President of the Commonwealth Steel Company, in a communication to the employes of that institution,

notes the fact that their service flag is entitled to two hundred and fifty stars, and continuing, President Howard says: "When we think of our 'Stars,' let each of us, from apprentice boy to president, ask himself, 'Am I doing ALL I CAN EACH DAY for these pals who used to work by my side and who are now thousands of miles away in a foreign land, fighting for the PEACE and LIBERTIES of the peoples of the world.'"

The Eastern Manufacturing Company comments with considerable pride on the fact that seventy-three per cent of the members of their Efficiency Department, which was organized about two years prior to the entrance of our country into the world war, are in military service, and that all but two of the members were volunteers.

British to Study America

Arrangements have been made for a series of special lectures at Cambridge University for the summer meeting, beginning August 1, when the main subject will be the United States of America, *The Times* announces. This subject has been chosen because the university authorities believe it "of great importance that the British people should have a fuller knowledge of the national outlook of the United States."

Among the lecturers selected for this session are Professors George H. Nettleton, Henry S. Canby, and Henry A. Bumstead, of Yale University; J. W. Cunliffe, of Columbia; Dr. Santayana, formerly of Harvard, and Sir William Osler, formerly of Johns Hopkins and now of Oxford.

STANDING COMMITTEES

Sub-Committees of the Executive Committee

Program

F. C. HENDERSCHOTT, Chairman.
The New York Edison Company, New York, N. Y.

Duties:

To plan the work assignments of committees and the convention program.

Publications

E. J. MEHREN, Chairman.
McGraw Hill Publishing Company, New York, N. Y.

Duties:

To supervise the Association's publications.

Membership

W. W. KINCAID, Chairman.
The Spirella Company, Inc.,
Niagara Falls, N. Y.

Duties:

To be responsible for getting new members. To investigate the loss of old members.

Cooperation with Other Organizations

DR. H. M. ROWE, Chairman.
The H. M. Rowe Company,
Baltimore, Maryland.

Duties:

To be responsible for cooperation with other organizations.

Training Educational Directors

C. R. DOOLEY, Chairman.
Westinghouse Electric & Manufacturing Company, East
Pittsburgh, Pa.

Duties:

To supervise the experimental

course arranged with New York University for training educational directors and in-

structors with a view to developing similar plans at other educational institutions.

Committees of the Association

Organization and Administration

A. C. VINAL, Chairman.

American Telephone and Telegraph Company, New York, N. Y.

Duties:

To determine the best methods of organization of educational work as a function of management in typical instances.

Methods of Instruction

J. K. BRUGLER, JR., Chairman.

Western Union Telegraph Company, New York, N. Y.

Duties:

To further determine the application of the laboratory, library and inspection trip methods.

Public Education

Section I—Elementary and Secondary Schools

C. E. SHAW, Chairman.

Dennison Manufacturing Company, Framingham, Mass.

Duties:

To determine ways by which member companies can best cooperate with these schools.

Section II—Continuation Schools

DR. PAUL KREUZPOINTNER, Chairman.

The Pennsylvania Railroad Company, Altoona, Pa.

Duties:

To report on the application of the Smith-Hughes Vocational Educational Law.

Health Education

SYDNEY W. ASHE, Chairman.

General Electric Company, Pittsfield, Mass.

Duties:

To suggest methods of improving the health of employees.

Employment

F. P. PITZER, General Chairman.

The Equitable Life Assurance Society, New York, N. Y.

Section I—Employees Selection and Job Analysis

H. A. HOFF, Chairman.

E. I. du Pont de Nemours & Co., Wilmington, Del.

Duties:

To determine how typical clerical and mechanical jobs can be analyzed as an aid in determining the kind of employee desired.

How can employees' fitness for particular typical jobs be determined by tests.

To determine records and organization necessary to best handle promotions and transfers.

Section II—Labor Turnover

F. P. PITZER.

The Equitable Life Assurance Society, New York, N. Y.

Duties:

To determine the best methods of calculating turnover.

To determine that per cent of turnover under typical conditions which can be accepted as normal.

Marketing

DR. LEE GALLOWAY, General Chairman.

New York University, New York, N. Y.

Section I—Advertising, Selling and Distribution

DR. LEE GALLOWAY, Chairman.

Duties:

To ascertain what organized training is desirable for those engaged in foreign trades.

Section II—Retail Salesmanship

MISS BUELAH KENNARD,

23 Park Ave., New York City.

Duties:

To determine how to teach a knowledge of merchandise and its uses as a basis of training for better service in retail selling.

Office Work Training

R. H. PUFFER, Chairman.

Larkin Company, Buffalo, N. Y.

Duties:

To determine under what conditions is organized training for office boys, clerks and stenographers advisable.

Technical and Executive Training

KENDALL WEISIGER, General Chairman.

Southern Bell Telephone and Telegraph Company, Atlanta, Ga.

Section I—Technical

W. M. SKIFF, Chairman.

General Electric Company, Cleveland, Ohio.

Duties:

To determine what ways can employers of technical graduates

cooperate with technical schools.

Section II—Executive

NORMAN COLLYER, Chairman.
Southern Pacific Company, San Francisco, California.

Duties:

To suggest methods of promotion and training of minor executives in handling men and carrying out company policies.

Trade Apprenticeship

F. W. THOMAS, General Chairman.

The Atchison, Topeka & Santa Fé Railroad System, Topeka, Kansas.

Section I—Railroads

THOMAS G. GRAY, Chairman.
Southern Pacific Company, Sacramento, Cal.

Duties:

To determine what supervision of work is desirable for other than machinist apprentices in railroad shops.

Section II—Manufacturing

J. J. GARVEY, Chairman.
Western Electric Company, Inc., Chicago, Ill.

Duties:

To ascertain under what conditions is an apprentice instruction shop desirable in a manufacturing plant.

Section III—Steel

P. E. WAKEFIELD, Chairman.
Carnegie Steel Company, Duquesne, Pa.

Duties:

To ascertain what supervision of shop work is desirable for apprentices in steel mills.

Unskilled and Semi-skilled Labor

J. E. BANKS, General Chairman.
American Bridge Company, Ambridge, Pa.

Section I—Unskilled

H. T. WALLER, Chairman.
The B. F. Goodrich Company, Akron, Ohio.

Duties:

To determine best plans for Americanizing the foreign born. Recommend standard educational programs for American (including negroes) unskilled workmen.

To determine best methods of teaching English to the foreign born.

Section II—Semi-skilled

CARL S. COLER, Chairman.
Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Duties:

To determine best methods of instruction to bring operators up to standard rates on specific tasks.

Local Chapters

JOHN MCLEOD, Chairman.
Carnegie Steel Co., Pittsburgh, Pa.

Duties:

To be responsible for the relations with the Association's Local Chapters.

To supervise the organization of groups of members into Local Chapters.

To be responsible for the furthering of the Association's interests through the Local Chapters.

Nominating

JOHN MCLEOD, Chairman.
Carnegie Steel Company, Pittsburgh, Pa.

Duties:

To nominate candidates for the offices and executive committee as required by the constitution.

Directory of Local Chapters

Pittsburgh Local Chapter

C. R. DOOLEY, Chairman.
Westinghouse Electric and Manufacturing Company.
P. E. WAKEFIELD, Secretary-Treasurer.
Carnegie Steel Company, Duquesne, Pa.

New York Local Chapter

JOHN T. SCANLON, Chairman.
Standard Fashion Company, New York, N. Y.

Philadelphia Local Chapter

MONT H. WRIGHT, Chairman.

John B. Stetson Company, Philadelphia, Pa.

N. F. DOUGHERTY, Secretary-Treasurer.

The Pennsylvania Railroad Company.

Chicago Local Chapter

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